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FISH & RICHARDSON PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
BARQADLE, YASIN M	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

MAILED

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Technology Center 2100

Application Number: 09/757,745
Filing Date: January 10, 2001
Appellant(s): ROZEN, JOHN

Faustino A. Lichauco
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 1, 2007 appealing from the Office action mailed 08/28/2007.

Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

The statement of the status of the claims contained in the brief is correct.

Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

Evidence Relied Upon

6212570 HASEBE 4-2001

TCP/IP illustrated, Volume 1: The Protocols STEVENS 1994

GROUND OF REJECTION

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 6, and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hasebe et al. (U.S. Patent Number 6,212,570.

Claims 5, 8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasebe et al in view of Stevens et al. (TCP/IP illustrated, Volume 1: The Protocols.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6, and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hasebe et al. (U.S. Patent Number 6,212,570, hereinafter "Hasebe"). Hasebe discloses an information distribution device selection system.

In referring to claims 1 and 10, Hasebe shows,

- Providing said client with a shared address, said shared address being common to a plurality of content servers:

"the system comprising: a plurality of information distribution service communication networks which are physically different but having an identical communication network identifier"

- U.S. Patent No. 6,212,570, col. 4, lines 1-4

- Each of said content servers having a copy of said desired content:

"Namely, it is an information distribution device selection system in which at least two or more information distribution devices 60 for realizing the same information providing are present on the inter-connected communication networks formed by a plurality of communication networks"

- U.S. Patent No. 6,212,570, col. 7, lines 29-33

- Serving said client from an optimal content server selected from said plurality of content servers:

"one information distribution device 60 is selected from a plurality of these information distribution devices 60 that are present, by the user terminal device 10"

- U.S. Patent No. 6,212,570, col. 7, lines 34-36

- Said optimal content server having been selected on the basis of an optimal path from said client to said shared address:

"By the above mechanism for automatic registration of the routing information table, it is possible to realize the selection of a route to the logically closest information distribution device 60 among a group of the information distribution devices 60 which are currently capable of responding to a request destined to the information distribution service communication terminal identifier."

- U.S. Patent No. 6,212,570, col. 8, line 65 - col. 9, lines 4

In referring to claims 1, 10, and 13, Hasebe shows substantial features of the claimed invention, including:

- At an origin server (fig. 7, device 20. see also fig. 8, devices 20A-20C) separate from the content server (device 60A-60C), receiving a request from a client for desired content (col. 6, lines 6-27; **col. 8, lines 12-45** and col. 9. lines 38 to col. 10, line 25);

- Identifying an autonomous system having a plurality of content servers:

"Then, the routing control function can be realized either only within the routing control autonomous system 30 (which indicates own communication network range at a time of exchanging routing

information using external routing control means among communication network providers), or as a combination of a plurality of routing control autonomous system 30. " (Hasebe, cot. 7, line 65 to col. 8, line 30. See also fig. 7 and 8 distribution devices 60A-60C with shared IP address)

- Each of the content servers having, a copy of the desired content, and

"Namely, it is an information distribution device selection system in which at least two or more information distribution devices 60 for realizing the same information providing are present on the inter-connected communication networks formed by a plurality of communication networks" (Hasebe, cot. 7, lines 29-33)

- Providing said client with a shared address, said shared address being common to said content servers:

"the system comprising: a plurality of information distribution service communication networks which are physically different but having an identical communication network identifier" (Hasebe, cot. 4, lines 1-4)

- Serving said client from an optimal content server selected from said plurality of content servers:

"one information distribution device 60 is selected from a plurality of these information distribution devices 60 that are

present, by the user terminal device 10" (Hasebe, cot. 7, lines 34-36)

- Said optimal content server having been selected on the basis of an optimal path from said client to said shared address:

  "By the above mechanism for automatic registration of the routing information table, it is possible to realize the selection of 'a route to the logically closest information distribution device 60 among a group of the information distribution devices 60 which are currently capable of responding to a request destined to the information distribution service communication terminal identifier. " (Hasebe, col. 8, line 65 - col. 9, lines 4)

In referring to claims 2 and 11, Hasebe shows,

- Identifying an optimal path between said client and said shared address (U.S. Patent No. *6,212,570, col. 8, line 65 - col. 9, lines 4, quoted above*)
- Receiving a request from said client to connect to a content server at said shared address and designating a content-server on said optimal path to be said optimal content-server (*U.S. Patent No. 6,212,570, col. 8, line 65 - col. 9, lines 4, quoted above*)

In referring to claims 3 and 12, Hasebe shows,

- *Directing said client to reach said optimal content-server by following said optimal path* (U.S. Patent No. 6,212,570, col. 8, line 65 - col. 9, lines 4, quoted above)

In referring to claims 13, Hasebe shows,

- Grouping said plurality of content servers into an autonomous system:

  "Then, the routing control function can be realized either only within the routing control autonomous system 30 (which indicates own communication network range at a time of exchanging routing information using external routing control means among communication network providers), or as a combination of a plurality of routing control autonomous system 30."

  (See fig. 8, col. 7, lines 65 - col. 8, line 4

In referring to claim 6, Hasebe shows,

- An autonomous system including a first content server and a second content server having content in common with said first content server (see fig. 8; *col. 7, lines 29-40 and* col. 9. lines 38 to col. 10, line 25),
- At an origin server separate from autonomous systems for providing an address to a client in response to a request for content, the address identifying said autonomous system (see fig. 8; col. 6, lines17-27 and col. 9. lines 38 to col. 10, line 25);

"According to another aspect of the present invention there is provided a local unit constituting an information distribution device selection system for selecting one information distribution device on an inter-connected communication networks formed by a plurality of communication networks, which provides an information in response to a request from a user terminal device or an information distribution relay device" (col. 4, lines 28-35)

- A first router for relaying messages to said first content server and a second router for relaying messages to said second content server:

  "a plurality of communication network exchange devices respectively provided in the information distribution service communication networks, each communication network exchange device having a routing control function for inter-connecting a corresponding information distribution service communication network with other information distribution service communication networks"

  - U.S. Patent No. 6,212,570, col. 4, lines 11-18

(A network exchange device with a routing control function is, by definition, a router)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5, 8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasebe in view of Stevens et al. (TCP/IP illustrated, Volume 1: The Protocols, hereinafter "Stevens").

In referring to claims 5, 8, and 14, although Hasebe shows substantial features of the claimed invention, including the system of claims 4, 6, and 13, Hasebe does not explicitly show the use of a Border Gateway Protocol (BGP) router. Nonetheless this feature is well known in the art and would have been an obvious type of router to use in the system disclosed by Hasebe as evidenced by Stevens.

In analogous art, Stevens discloses the use of BGP, a protocol used for communication between routers. Stevens shows:

"BGP is an exterior gateway protocol for communication between routers in different autonomous systems. BGP is a replacement for

the older EGP that was used on the ARPANET. BGP Version 3 is defined in RFC 1267 [Lougheed and Rekhter 1991]." (Stevens, TCP/IP illustrated, Volume 1: The Protocols, page 138)

"BGP is a distance vector protocol, but unlike RIP (which announces hops to a destination), BGP enumerates the route to each destination (the sequence of AS numbers to the destination). This removes some of the problems associated with distance-vector protocols. An AS is identified by a 16-bit number." - Stevens, TCP/IP illustrated, Volume 1: The Protocols, page 139

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of using BPG routers in the system of Hasebe, such as taught by Stevens, in order to implement the content servers in autonomous systems such as implemented in networks using Border Gateway Protocol (BGP) and to remove some of the problems associated with distance-vector protocols such as routing loops and "count-to-infinity".

Response to Arguments

The appellant's arguments raised in the Appeal Brief have been considered but are not deemed persuasive.

In essence the Applicant argues:

A - Hasebe Fails to disclose an "origin server". (Page 7, second paragraph). According to the Appellant's statement in page 7, lines 1-3 "it is unclear, therefore, where Hasebe teaches an "origin Server" that is "separate from the content servers" ..."

B - Hasebe Fails to disclose autonomous system (Page 11, second paragraph 4)

In response to argument A, Hasebe teaches a client (user terminal 10), an origin server (network exchange device 20) and content servers (Information distribution devices 60a-c) (see fig. 7 and fig. 8; col. 6, lines 6-27; **col. 8, lines 12-45**). Looking at fig. 7, it is clear that a request for information from user terminal 10 is received at origin server (device 20), which is separate from Information distribution devices 60A-C. Also Appellant has admitted that network exchange device 20 receives a request from the user terminal device 10 "Applicant agrees that a network exchnage device, or router, receives a request from the user terminal device/client..." 10. (page 3, paragraph 3 remarks 09/07/2006). Hasebe teaches "The information distribution device 60 has a function for transmitting and providing information upon receiving a request from the user terminal device 10, a function for relaying information such as

video, speech, text, etc. in real time, and a function for storing information transmitted from the user." It is these contents (video, speech, text) that user terminal 10 is desired and provided by the information distribution device 60. The origin server of the Appellant is similar to the device 20 in Hasebe in such a way that both provide a shared IP address of the content servers (information distribution device 60).

In response to argument B, Hasebe if taken in complete context does teach the limitations of the claimed invention. Hasebe teaches an autonomous system in which there exists a plurality of devices that act in conjunction with one another to perform the tasks of disseminating content. Furthermore, all content servers share a common, identical communication network identifier. Therefore, in order for a particular content server to be isolated, the autonomous system must be utilized. For example fig. 7 of Hasebe shows Network A including plurality of information distribution device 60. Fig. 8 shows how the information distribution devices 60A-C are related by sharing Identical common ID such as IP address 192.0.0.1). The Autonomous network 30 is what interconnects between service providers (for example network A) having plurality of information distribution device 60A-C. It seems the Appellant

selected portions of the Hasebe reference without looking into other portions cited by the examiner in reference to the issue of autonomous systems. For example in rejecting claim 6, the examiner pointed out what he regards as autonomous system with a plurality of server ((see fig. 8; *col. 7, lines 29-40 and* col. 9. lines 38 to col. 10, line 25), furthermore as stated above, Fig. 7 shows Network A considered as an autonomous system in which there exists a plurality of devices that act in conjunction with one another to perform the tasks of disseminating content. All content servers share a common, identical communication network identifier 192.0.0.1 (see fig. 8 and col. 6, lines 6-17.

Appellant also argues, "Claim 6 recites both the origin server and the autonomous system that includes at least two content servers. For reasons discussed in connection with claim 1. Hasebe fails to disclose both of these claim limitations. Examiner disagrees. As discussed above the origin server is equivalent to device 20 of Hasebe and the autonomous system with at least two content servers is the set of (information distribution device 60A-C in network A of fig. 7 that share common identifier as shown in fig. 8.

The Appellant also argues "Claim 2 requires that serving a client from an optimal content server include "identifying an optimal path between [a] client and [a] shared address" where the shared address is associated with a content server 12." second paragraph, page 12. Examiner respectfully disagrees. Hasebe shows "In order to resolve these problems associated with the system of FIG. 6, the present invention proposes a system as shown in FIG. 7, where a communication network A has a plurality of connections with the inter-connected communication networks at physically different locations, and a plurality of information distribution devices 60 having the identical communication terminal identifier are provided at physically different locations in the communication network A. In this system, it is possible for the user to automatically select an optimum route and make a connection to the logically closest information distribution device 60." (Col. 6, lines 6-17). It is clear that Hasebe can select the best route among servers that are located in different regions even though they share identical common identifiers.

Regarding claims 5,8 and 14.

Appellant also argues "one ordinary skill in the art would have not recognized that there would be no reason "to implement the content servers as autonomous system" ... "In addition... there

would be no reason for it to "desire" an autonomous system." Page 13 last paragraph to page 14 third paragraph.

Examiner disagrees with Appellant's characterization of the rejection in claims 5,8 and 14. It seems that the Appellant is equating the autonomous system described in claim 1 and the well-known Autonomous Systems (AS) in BGP (Border Gateway Protocol), which is defined in a detail in RFC 1772 and RFC 1267 (see 103 rejection above for RFC 1267). The autonomous system described in claim 1 is a set of content servers that are grouped together and share a common identifier as shown in figs 7 and fig. 8. See details above. However in rejecting claims 5,8 and 14, the Examiner stated that Hasebe does not show the use of a Border Gateway Protocol (BGP) router among his exchange routing devices. BGP enumerates the route to each destination (the sequence of AS (Autonomous Systems) numbers to the destination). This removes some of the problems associated with distance-vector protocols. In particular, BGP exchanges routing information containing full AS (Autonomous Systems) paths and enforces routing policies based on configuration information. It is this type of Autonomous Systems that comes with using BGP that is desired by the system of Hasebe. In this way if the content servers are with a service provider that uses BGP

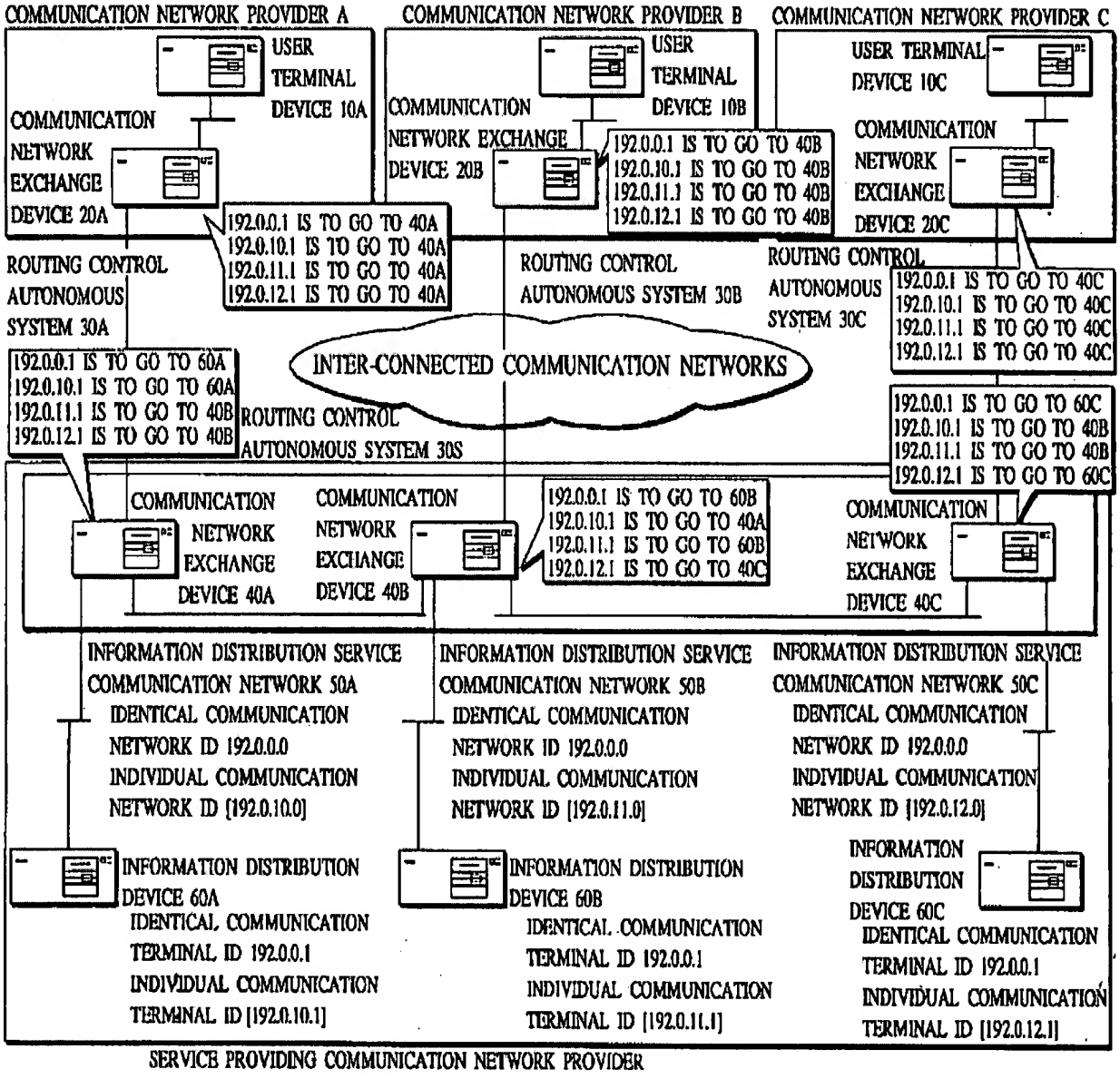
routers, problems associated with distance-vector protocols such as routing loops and "count-to-infinity" would be avoided and the best way to reach the desired content server is achieved.

Note: Examiner would like to point out that claim 5 depends on itself as stated by the Appellant. On March 07, 2007 examiner submitted papers accepting the entry of the Applicant's remarks submitted on February 27, 2007. However, it is not shown in EDAN. Therefore, it is assumed that claim 5 depends on claim 1.

In summary:

Fig. 8 clearly identifies the invention as claimed. For example Fig. 8 shows user terminal device 10 connected to communication network exchange device 20 (origin server). Device 20A shows a table identifying the route for content server 60A (IP address 192.0.0.1) in other words a statement saying if you want to get contents from content server 60 (A-C), here is their shared (common) IP address via Exchange device 40A (192.0.0.1 IS TO GO to 40A). Exchange device 40A shows the statement (192.0.0.1 IS TO GO to 60A) in his table, basically saying the content server 60 (A-C) with common identifier (IP address 192.0.0.1) is found this way. See fig. 8; col. 6, lines 6-27; col. 8, lines 12-45).

FIG.8



Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Y. Barqadle

July 09, 2007

Conferees

LYNNE H. BROWNE
APPEAL PRACTICE SPECIALIST, TQAS
TECHNOLOGY CENTER 2100

JASON CARDONE
SUPERVISORY PATENT EXAMINER